WHAT IS CLAIMED IS:

1. A method for forming quantum dots, comprising the steps of:

(a) depositing a metal thin layer 2 onto a substrate 1;

(b) coating a dielectric precursor 3 onto the metal thin layer 2; and

(c) heating the resultant substrate 1, on which the said metal thin layer 2 and the said dielectric precursor 3 were sequentially stacked, in a furnace in which the temperature is stepwisely elevated to a maximum of 200 to 500℃.

2. A method for forming quantum dots, comprising the steps of:

(a) mixing a dielectric precursor diluted in a solvent and a metal powder, and stirring the mixture;

(b) coating the dielectric precursor solution in which the said metal powder was dissolved, onto a substrate; and

(c) heating the resultant substrate with the temperature being stepwisely elevated to a maximum of 200 to 500℃.

3. The method for forming quantum dots according to claim 1 or 2, wherein the metal of the said metal thin layer or the said metal powder is at least one selected from the group consisting of copper, zinc, tin, cobalt, iron, cadmium,

lead, magnesium, barium, molybdenum, indium, nickel, tungsten, bismuth, silver, manganese and alloys thereof.

4. The method for forming quantum dots according to claim 1 or 2, wherein the said dielectric precursor is an acidic precursor capable of dissolving the said metal.

5. The method for forming quantum dots according to claim 4, wherein the said acidic precursor includes those containing carboxyl groups (-COOH).

6. The method for forming quantum dots according to claim 1, further comprising the step of subjecting the resultant substrate 1 on which the metal thin layer 2 and the dielectric precursor 3 were sequentially stacked, to a first intermediate heating at 80-150℃, prior to step (c).

7. The method for forming quantum dots according to claim 1, further comprising the step of depositing a solution in which the dielectric precursor 3 is dissolved in a solvent, onto the substrate 1 and subjecting the resultant substrate 1 to a second intermediate heating at 80-150℃, prior to step (a).

8. The method for forming quantum dots according to

claim 2 or 7, wherein the said solvent is at least one selected from N-methylpyrrolidone (NMP), water, N-dimethylacetamide and diglyme.

9. The method for forming quantum dots according to claim 2, further comprising the additional step of stirring the mixture so that the metal powder is sufficiently reacted with the dielectric precursor after step (a).

10. The method for forming quantum dots according to claim 2, further comprising the step of subjecting the resultant substrate onto which the dielectric precursor solution in which the metal powder has been dissolved was coated, to a first intermediate heating at 80-150℃, prior to step (c).

11. The method for forming quantum dots according to claim 2, further comprising the step of depositing a solution in which the dielectric precursor 3 is dissolved in a solvent, onto the substrate and subjecting the resultant substrate to a second intermediate heating at 80-150℃, prior to step (a).

12. The method for forming quantum dots according to claim 11, wherein the solvent is at least one selected from N-methylpyrrolidone (NMP), water, N-dimethylacetamide and

diglyme.

13. The method for forming quantum dots according to claim 2, wherein the coating of the solution of the dielectric precursor in which the metal powder is dissolved, onto the substrate is carried out by one technique selected from spin coating, jetting, spraying, printing, brushing, casting, blade coating, dispensing and molding.

14. The method for forming quantum dots according to claim 2, wherein the control of the size, density and distribution of quantum dots is carried out by adjusting the amount of the metal powder in the mixing step (a) and/or controlling the heating conditions in the heating step (c).

15. A polymer thin film in which the metal oxide quantum dots formed by the method according to claim 1 or 2 are dispersed.

16. An electronic device including the polymer thin film according to claim 15 in which metal oxide quantum dots are dispersed.